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April 27, 2006

**TO: Examiner Jason Phang
Group Art Unit 3725**

FROM: Laurence Stein

Fax: 571-273-8300

Comments:

Please forward this Communication to Examiner Pahng as soon as possible. Attached is a Request for Examiner Interview.

TOTAL NUMBER OF PAGES 13 INCLUDING COVER SHEET

Operator: Carrie Atkins

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with this transmission.***

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Applicant Initiated Interview Request Form

Application No.: 10/758,529 First Named Applicant: MINORU TSUCHIDA
Examiner: PAHNG, JASON Y. Art Unit: 3725 Status of Application: _____

Tentative Participants:

(1) LAURENCE STEIN (2) JASON PAHNG

(3) _____ (4) _____

Proposed Date of Interview: 5/2/2006 Proposed Time: Any (AM/PM)

Type of Interview Requested:

(1) ☒ Telephonic (2) ☐ Personal (3) ☐ Video Conference

Exhibit To Be Shown or Demonstrated: ☐ YES ☒ NO

If yes, provide brief description: _____

Issues To Be Discussed

| Issues (Ref., Obj., etc) | Claims/ Fig. #s | Prior Art | Discussed | Agreed | Not Agreed |
|--|--------------------|---|--------------------------|--------------------------|--------------------------|
| (1) <u>Ref.</u> | <u>1-5, 10-20</u> | <u>Art WUBER, UEDA, BECHER & MURATA</u> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (2) _____ | _____ | _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (3) _____ | _____ | _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (4) _____ | _____ | _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Continuation Sheet Attached | | | | | |

Brief Description of Arguments to be Presented: THE REFERENCES RELIED UPON

FAIL TO ESTABLISH PRIMA FACIE OBVIOUSNESS. SEE ATTACHED
ELEVEN (11) SHEETS

An interview was conducted on the above-identified application on _____.

NOTE: This form should be completed by applicant and submitted to the examiner in advance of the interview (see MPEP § 713.01).

This application will not be delayed from issue because of applicant's failure to submit a written record of this interview. Therefore, applicant is advised to file a statement of the substance of this interview (37 CFR 1.133(b)) as soon as possible.

Laurence E. Stein

Applicant/Applicant's Representative Signature

LAURENCE E. STEIN

Typed/Printed Name of Applicant or Representative

35,371

Registration Number, if applicable

Examiner/SPE Signature

This collection of information is required by 37 CFR 1.133. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 21 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of

Minoru Tsuchida

Confirmation No.: 5605

Serial No. 10/758,529

Group Art Unit: 3725

Filed: January 16, 2004

Examiner: Pahng, Jason Y.

For: METHOD OF PROCESSING
COMPOSITE WASTES

TOPICS FOR DISCUSSION

Sir:

Applicants respectfully request a telephone interview with the Examiner for purposes of clarifying issues regarding the Office Action mailed February 16, 2006, and respectfully submit that such clarification would expedite examination of this application. A draft amendment to the claims is attached for purposes of focusing the interview on the claims, as they will stand after amendment to overcome all objections and rejections not based on prior art set forth by the Office Action. As a preliminary matter, the allowance of claims 6 to 9 is noted with appreciation.

The Office Action's objections for form, and the rejections not based on prior art will be omitted from discussion; all are addressed and overcome by the attached draft claim amendments for form.

1. The Rejection of Claims 1 - 5, 10, 11, 13, 14 and 16-19.

The Office Action rejects Claims 1 - 5, 10, 11, 13, 14 and 16-19 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 4,376,373 ("Weber") in view of U.S. Patent 6,336,601 ("Ueno") and U.S. Patent 3,266,373 ("Sharp"). See Office Action at pp. 1-6.

Applicants respectfully request that these rejections be reconsidered and withdrawn.

First, there is no disclosure, teaching or other suggestion within these references that would lead one of ordinary skill in the art to combine

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and modify what they disclose to achieve any of Applicants' pending claims 1-5, 10, 11, 13, 14 or 16-19. Therefore, the cited collection of references, i.e., Weber, Ueno and Sharp, fail to establish *prima facie* obviousness of any of claims 1-5, 10, 11, 13, 14 or 16-19.

Second, if Weber were, as a hypothetical, modified in the manner stated by the Office Action, such modification would drastically change Weber's principle of operation. The rejection is therefore improper and should be withdrawn. *See* MPEP § 2143.01(VI)

Third, if Weber were, as a hypothetical, modified in the manner stated by the Office Action, such modification would render Weber's disclosed method and apparatus wholly unsatisfactory, if not useless, for its intended purpose. The rejection is therefore improper and should be withdrawn. *See* MPEP § 2143.01(V).

Applicants' claims 1 and 10 are the independent claims among claims 1-5, 10, 11, 13, 14 and 16-19 and, for purposes of the telephonic interview, will be the only ones of the claims addressed.

Applicants' claims 1 and 10 recite, among other limitations, (i) pressing a composite waste and (ii) dry distilling the pressed composite. *See* claim 1, as draft amended, at lines 2-9, and *see* claim 10, as draft amended, at lines 5-11.

Weber discloses a system having an air-fed incinerator, a generator and an electric furnace. *See* Weber at Fig. 1, and at column 5, lines 16-67. Weber's system incinerates waste cars and uses the heat generated by the air-fed incinerator to run the generator that, in turn, powers the electric furnace to melt the metal remaining after the incineration. *See, e.g.,* Weber at column 5, lines 16-27 and lines 48-56. *See also*, Weber at column 7, lines 58-64. The operation of Weber's system depends on, utilizes, and requires the heat generated by the incineration. Weber teaches that air is required for incineration and discloses structures for injecting air. *See, e.g.,* Weber at column 7, lines 23-35. Weber discloses nothing of compressing the cars prior to incineration.

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Ueno discloses shredding and dry distilling circuit boards. Ueno discloses nothing of compressing a circuit board prior to dry distillation. Ueno therefore cannot be a suggestion for compressing a car prior to dry distillation.

Sharp discloses pressing, or crushing an automobile after it has been “burned to destroy upholstery, wiring and items non-ferrous metals.” Sharp at column 6, line 71 through column 7, line 1. Applicants respectfully submit that the phrase “burned to destroy upholstery, wiring and items of non-ferrous metals” means burning, which is a heat-generating reaction between oxygen contacting the “upholstery, wiring and items of non-ferrous metals” and those materials. Sharp discloses nothing of pressing or crushing an automobile, or anything else, prior to burning it. Sharp discloses nothing of dry distilling an automobile, at any time in its recycling process.

As stated above, Applicants’ claims 1 and 10 recite pressing a composite waste and dry distillation of that compressed waste. Therefore, to modify Weber to achieve Applicants’ claim 1 or 10 requires replacing Weber’s incinerator with a dry distiller and compressing the car prior to putting it into that substituted dry distiller. The cited references do not suggest such a combination. They cannot do so. Weber’s system utilizes the heat of incineration to provide power to an electric furnace. Weber does not suggest replacing its incinerator with a dry distiller; it suggests against such a modification because dry distillation does not generate heat adequate to make any substantial electric power. Weber does not suggest pressing a car before incineration. At best, Weber suggests against such pressing because, as the Examiner can make Official Notice of, a pressed car would not burn anywhere near as well as a non-compressed car - oxygen would be impeded from contacting the burnable materials inside the pressed car. Ueno does not have any suggestion for modifying Weber to use dry distillation. Ueno teaches dry distilling circuit boards. That is all that Ueno teaches. Sharp does not suggest modifying Weber to press a

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car prior to incineration. Sharp discloses compressing a car only after it has been incinerated.

The collected references of Weber, Ueno and Sharp therefore fail to establish *prima facie* obviousness of Applicants' claims 1 and 10.

Further, if Weber were modified by replacing its incinerator with a dry distiller, and further modified to press a composite waste prior to that dry distillation (a sequence limitation which none of the references teaches), Weber would have a completely different principle of operation. Instead of incinerating a car to generate heat to run generators that power its electric furnaces, it would only consume power – power to heat the dry distiller and power supply to run its electric furnaces. The hypothetical modification of Weber based on Ueno and Sharp is therefore improper. *See* MPEP § 2143.01(VI) (“If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious”)

In addition, if Weber were modified by replacing its incinerator with a dry distiller, and further modified to press a car prior to that dry distillation (which none of the references teaches anyway), Weber would be unsatisfactory for its intended purpose. Weber's intended purpose is to recycle cars with less power consumption than Weber's prior art. *See* Weber's Title of the Invention (“Energy Recovery System”) (emphasis added). *See also* Weber at Abstract (“[h]eat from the incinerator is used to power a turbine driven electricity generator”). Replacing Weber's incinerator with a dry distiller would destroy its intended purpose of recycling energy because it would consume, not generate or recycle, energy – the energy or power to heat the dry distiller and the energy or power to run its electric furnaces. The hypothetical modification of Weber based on Ueno and Sharp is therefore improper. *See* MPEP § 2143.01(V) (“If [the] proposed modification would render the prior art invention being

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modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.”)

2. The Rejection of Claim 15.

The Office Action rejects Claim 15 under 35 U.S.C. § 103(a) as being unpatentable over Weber in view of Ueno and Sharp, in further view of what the Office Action identifies as Applicants’ Admitted Prior Art (“AAPA”). *See* Office Action at pp. 6-7. Claim 15 is dependent from claim 10. Applicants respectfully submit that AAPA adds nothing to the combined teachings of Weber, Ueno and Sharp that would lead one of ordinary skill toward Applicants’ claim 10. The AAPA is that dry distillation of cars is known. Therefore, at best, AAPA is cumulative to Ueno. Applicants’ claim 10 invention is not dry distillation, *per se*, of composite waste. Applicants’ invention is compressing a composite waste prior to dry distilling. AAPA teaches nothing of this invention. Further, AAPA does not change the fact that the modification of Weber as stated by the Office Action would change Weber’s principle of operation and render Weber unacceptable for its intended purpose.

3. The Rejection of Claim 20

The Office Action rejects Claim 20 under 35 U.S.C. § 103(a) as being unpatentable over Ueno in view of U.S. Patent 6,141,945 (“Becher”) and U.S. Patent 6,086,000 (“Murata”). *See* Office Action at pp. 7-8.

Applicants’ claim 20 recites, among other limitations: (i) “pressing the composite waste into a pressed composite waste having a pressed said outer dimension substantially smaller than said initial outer dimension” and (ii) “dry distilling the pressed composite to produce distilled residuals.” Claim 20, as draft amended, at lines 4-10.

Ueno discloses dry distilling circuit boards. Ueno does not teach or suggest anything of compressing the circuit boards prior to dry distilling. Becher discloses a method and apparatus for compressing

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household waste and then sealing the compressed material in plastic bags. Becher teaches nothing of compressing anything prior to dry distillation. Murata discloses a method and apparatus for crushing shredder dust and separating it into ferrous metals, non-ferrous metals, non-metals and other materials. Murata teaches nothing whatsoever of performing any crushing any waste prior to any heat-related process, much less the dry distillation process recited by Applicants' claim 20.

Applicants therefore respectfully submit that the combination of Ueno, Becher and Murata simply cannot establish *prima facie* obviousness of Applicants' claim 20.

Respectfully submitted,

Laurence E. Stein
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See Attached Draft Listing of Claims 1-20

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DRAFT Listing of the Claims:

The following is a complete listing of a DRAFT of all the claims in the application, with an indication of the status, as per this DRAFT for purposes of a telephone interview with the Examiner, of each:

1 1 (Currently Draft Amended). A method of processing composite waste
2 including combustibles and incombustibles, the composite waste having an
3 outer dimension, comprising:

4 ~~a press process for~~ pressing the composite waste to decrease the
5 outer dimension of the composite waste and to generate a high density
6 pressed composite waste; and

7 ~~a dry distillation process for performing~~ dry distillation on the high
8 density pressed composite waste to generate a high-density dry distilled
9 waste.

1 2 (Currently Draft Amended). The method as claimed in claim 1, further
2 comprising:

3 ~~a shredding process for~~ shredding the high density dry distilled
4 composite waste to generate a shredded dry distilled composite waste that
5 has been pressed and has undergone dry distillation; and

6 ~~a separating process for~~ separating the shredded dry distilled
7 composite waste into combustible carbide and incombustibles.

1 3 (Currently Draft Amended). The method as claimed in claim 2, wherein
2 the shredding process comprises:

3 ~~a first step in which a~~ coarse shredding the high-density dry
4 distilled composite waste to generate a coarse shredded dry distilled waste
5 is performed; and

6 ~~a second step in which a~~ fine shredding the coarse shredded dry
7 distilled waste is performed.

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1 4 (Currently Draft Amended). The method as claimed in claim 1, wherein
2 the composite waste is a body ~~of a car~~, seats and ornamental materials of a
3 ~~inside the car~~.

1 5 (Currently Draft Amended). The method as claimed in claim 1, wherein
2 the composite waste is a body a car, seats and ornamental materials of a
3 inside the car, and the pressing is performed such that the pressed high
4 density composite waste ~~being in~~ has a rectangular parallelepiped shape.

1 6 (Original). A method of processing a waste car body including
2 combustibles and incombustibles, comprising:
3 dismantling engine, battery, tires, fuel tank and suspension from
4 the waste car body;
5 pressing said car body in three directions: top-to-bottom, left-to-
6 right, and front-to-rear, forming a rectangular parallelepiped block;
7 performing a dry distillation process of said rectangular
8 parallelepiped block in which solid organic matter is broken down
9 resulting in residuals;
10 performing a coarse shredding of said residuals in order to separate
11 glass and carbide produced by said dry distillation step;
12 performing a fine shredding of said residuals from which glass and
13 carbide have been separated; and
14 separating metals from fine shredded pieces of said residuals

1 7 (Previously Presented). The method of processing a waste car body
2 recited in claim 6, wherein the separated metals include iron, aluminum,
3 stainless steel and copper.

1 8 (Currently Draft Amended). The method of processing a waste car body
2 recited in claim 6, wherein the dry distillation process is carried out in a

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3 non-reducing atmosphere under a temperature ranging from 200–650%
4 degrees C.

1 9 (Previously Presented). The method of processing a waste car body
2 recited in claim 6, wherein multiple rectangular parallelepiped blocks are
3 simultaneously subject to said dry distillation process in a common
4 distillation pot.

1 10 (Currently Draft Amended). A method of processing composite waste
2 including combustibles and incombustibles, the composite waste having an
3 initial outer dimension and an initial density, ~~the method~~ comprising:
4 providing a dry distillation apparatus;
5 pressing the composite waste to a pressed composite waste having
6 a pressed outer dimension smaller than said initial dimension and a pressed
7 density higher than said initial density;
8 placing the pressed composite waste in a predetermined position in
9 said dry distillation apparatus; and
10 ~~a dry distillation process for performing dry distillation~~ distilling
11 ~~on the pressed composite waste that has been pressed to decrease the outer~~
12 ~~dimension of the composite waste in order to manufacture into a dry~~
13 distilled compressed waste having distilled residuals.

1 11 (Currently Draft Amended). The method as claimed in claim 10, further
2 comprising:
3 ~~a shredding process for~~ shredding the dry distilled compressed
4 waste having distilled residuals composite waste into a shredded dry
5 distilled waste having distilled residuals ~~that has been pressed and has~~
6 ~~undergone dry distillation;~~ and
7 ~~a separating process for~~ separating the shredded dry composite
8 waste having distilled residuals into combustible carbide and
9 incombustibles.

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1 12 (Currently Draft Amended). The method as claimed in claim 11,
2 wherein the shredding process comprises:
3 ~~a first step in which a coarse shredding the dry distilled compressed~~
4 ~~waste having distilled residuals to generate a coarse shredded dry~~
5 ~~distilled waste is performed; and~~
6 fine shredding the coarse shredded dry distilled waste is performed.

1 13 (Currently Draft Amended). The method as claimed in claim 10,
2 wherein the composite waste is a body ~~ear~~, seats and ornamental material
3 of a inside the car.

1 14 (Currently Draft Amended). The method as claimed in claim 10,
2 wherein the composite waste is a body a car, seats and ornamental
3 materials ~~of a inside the car, and the pressing is performed such that the~~
4 pressed high density composite waste ~~being in has a~~ rectangular
5 parallelepiped shape.

1 15 (Currently Draft Amended). The method as claimed in claim 14,
2 wherein engine, battery, tires, fuel tank and suspension have been
3 ~~dismantled from the pressed prior to pressing the~~ waste car body.

1 16 (Currently Draft Amended). The method as claimed in claim 12,
2 wherein the separating ~~step~~ separates metals from fine shredded pieces of
3 the residuals.

1 17 (Previously Presented). The method as claimed in claim 16, wherein the
2 separated metals include iron, aluminum, stainless steel and copper.

1 18 (Currently Draft Amended). The method as claimed in claim 10,
2 wherein the dry distillation ~~process~~ is carried out in a ~~non-reducing~~
3 nitrogen atmosphere under a temperature ranging from 200-650% C.

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1 19 (Currently Draft Amended). The method as claimed in claim 10,
2 wherein the distilled residuals are produced simultaneously ~~subject to the~~
3 ~~dry distillation process~~ in a common distillation pot

1 20 (Currently Draft Amended). A method of processing composite waste
2 including combustibles and incombustibles, the composite waste having an
3 initial outer dimension, comprising:
4 pressing the composite waste into a pressed composite waste
5 having a pressed said outer dimension substantially smaller than said
6 initial outer dimension;
7 ~~performing a dry distilling distillation process on the pressed~~
8 ~~composite waste that has been pressed to decrease the outer dimension of~~
9 ~~the composite waste in order to manufacture to produce~~ distilled
10 residuals including glass and carbide;
11 ~~performing a coarse shredding of said distilled residuals to~~
12 produce coarse shredded residuals in order to separate glass and carbide
13 ~~produced by the dry distillation step;~~
14 ~~performing a fine shredding of said coarse shredded residuals to~~
15 produce fine shredded pieces of residuals from which glass and carbide
16 ~~have been separated; and~~
17 separating metals from said fine shredded pieces of said residuals.